

Appendix

This Appendix forms an integral part of the specification.

XML DTD for SLS

```
<?xml version="1.0" encoding="UTF-8"?>
```

- 5 <!-- A DTD (Document Type Definition) for the Session Layer Security Protocol (SLS).-->

```
<!DOCTYPE SLS [
```

```
<!-- XML SLS DTD -->
```

- 10 <!ENTITY % uint8 "#PCDATA" >

```
<!-- Where the PCDATA is an 8-bit unsigned integer. -->
```

```
<!ENTITY % uint32 "#PCDATA" >
```

```
<!-- Where the PCDATA is an 32-bit unsigned integer. -->
```

- 15 <!ENTITY % Address "#PCDATA" >

```
<!ENTITY String "#PCDATA" >
```

- 20 <!ELEMENT Opaque (#PCDATA) >

```
<!ATTLIST Opaque
    encoding CDATA "urn:ietf-org:base64" >
```

```
<!ELEMENT % Object (#PCDATA) >
```

- 25 <!ATTLIST Object
 encoding CDATA #IMPLIED >

```
<!ELEMENT % ADR (#PCDATA) >
```

```
<!-- Where the PCDATA conforms to the ADR syntax. -->
```

- 30 <!ATTLIST ADR
 entity CDATA #IMPLIED >

```
<!-- Can use the entity to indicate which ADR syntax we want. -->
```

```
<!ELEMENT % ADRList (#PCDATA) >
```

```
<!-- Where the PCDATA conforms to the ADR syntax for a list. -->
```

```
<!ATTLIST ADR
```

```
5      entity CDATA #IMPLIED >
```

```
<!-- Can use the entity to indicate which ADR syntax we want. -->
```

```
<!ENTITY % MessageType " ALERT | HANDSHAKE | APPLICATION_MESSAGE |  
TUNNEL " >
```

```
10 <!ENTITY % EncodingType " SECURE_DATA | PROTECTED_DATA | CLEAR_DATA "  
>
```

```
<!ELEMENT versionMajor (%uint8;) >
```

```
<!ELEMENT versionMinor (%uint8;) >
```

```
15 <!ELEMENT spi (%uint32;) >
```

```
<!ELEMENT serial (%uint32;) >
```

```
<!ELEMENT inReplyTo (%uint32;) >
```

```
<!ELEMENT messageType (%MessageType;) >
```

```
<!ELEMENT encodingType (%EncodingType;) >
```

```
20 <!ELEMENT toAddress (%Address;) >
```

```
<!ELEMENT fromAddress (%Address;) >
```

```
<!ENTITY % PDUdata " SecureData | ProtectedData | ClearData " >
```

```
<!ELEMENT PDU (
```

```
25      versionMajor,
```

```
      versionMinor,
```

```
      spi,
```

```
      serial,
```

```
      inReplyTo?,
```

```
30      messageType,
```

```
      encodingType,
```

```
      toAddress,
```

```
fromAddress,
%PDUdata; ) >
```

```
<!ELEMENT SecureData ( Opaque ) >
```

5

```
<!ELEMENT ProtectedData ( mac, data ) >
```

```
<!ELEMENT mac ( Opaque ) >
```

```
<ELEMENT ClearData (Alert | %Handshake; | ApplicationMessage | PDU) >
```

10

```
<!ELEMENT Alert ( level, code, detail? ) >
```

```
<!ELEMENT level ( %AlertLevel; ) >
```

```
<!ELEMENT code ( %AlertCode; ) >
```

```
<!ELEMENT detail ( %String; ) >
```

15

```
<ENTITY % AlertLevel " FATAL | WARNING | DEBUG " >
```

```
<ENTITY % AlertCode "
```

```
  CLOSE_NOTIFY
```

20

```
  | UNEXPECTED_MESSAGE
```

```
  | BAD_SPI
```

```
  | BAD_SERIAL
```

```
  | BAD_MAC
```

```
  | HANDSHAKE_FAILURE
```

25

```
  | BAD_CERTIFICATE
```

```
  | UNSUPPORTED_CERTIFICATE
```

```
  | CERTIFICATE_REVOKED
```

```
  | CERTIFICATE_VERIFICATION_FAILED
```

```
  | ILLEGAL_PARAMETER
```

30

```
  | BAD_PROTOCOL_VERSION
```

```
  | INSUFFICIENT_SECURITY
```

```
  | NO_RENEGOTIATION
```

09723546.120700

| ERROR

" >

<!ENTITY % Handshake " HandshakeRequest

5 | HandshakeStart
 | HandshakeReply
 | HandshakeFinish
 " >

10 <!ELEMENT HandshakeStart (
 versionMajor,
 versionMinor,
 spi,
 group,
15 keyData,
 cipherSuiteList,
 tags?,
 query?) >

20 <!ELEMENT group (%ADR;) >
 <!ELEMENT keyData (%ADR;) >
 <!ELEMENT cipherSuiteList (%ADRList);>
 <!ELEMENT tags (%ADRList;) >
 <!ELEMENT query (%ADR;) >

25

 <!ELEMENT HandshakeReply (
 versionMajor,
 versionMinor,
30 spi,
 spiB,
 keyData,

09/33540.120700

payloadType,
payload?)>

<!ELEMENT primaryResource (ResourceReference)>

5 <!ELEMENT secondaryResources(ResourceReference*)>

<!ELEMENT handlerInfo (ResourceInfo*)>

<!ELEMENT payloadType (%PayloadType;)>

<!ELEMENT ResourceReference (#PCDATA) >

10 <!ELEMENT ResourceInfo (#PCDATA) >

<!ENTITY PayloadType "

METHOD_CALL

| METHOD_RESULT

15 | EXCEPTION

| EVENT

">

<!ELEMENT payload (MethodCall | Object) >

20

<!ELEMENT MethodCall (

interfaceName,

methodName,

args

25)>

<!ELEMENT interfaceName (%String;)>

<!ELEMENT methodName (%String;)>

<!ELEMENT args (Object*)>

30

]>